

*Note "On the Positions of 166 Stars around Nova
Geminorum" &c. By F. A. Bellamy.*

In a letter received from Father Hagen he states that he has satisfied himself that the two stars Nos. 57 and 58, referred to in *Monthly Notices*, lxiii. p. 520, are Oxford 158 and 17 respectively. In the Georgetown College Observatory Circular for Nova *Geminorum* the figures on page 4 for $\Delta\delta$ for Nos. 57 and 58 had been partly interchanged; they should be $+9^{\circ}.4$ and $-1^{\circ}.7$ instead of $+1^{\circ}.4$ and $-9^{\circ}.7$; the chart is correct. The Hagen number for Oxford 37 should be 27; the figure 2 had dropped out after passing the proof sheet. Further, he identifies Oxford 151 as Hagen 72.

University Observatory, Oxford:
1903 October 21.

Measures of Southern Double Stars made at Shanghai,
1902-1903. By James L. Scott.

The following measures of southern doubles were made with the same 5-inch refractor as those published in vol. lix. of the *Monthly Notices*. Bright wire illumination was used throughout, and nearly all the stars were measured within an hour of the meridian.

Star's Name.	R.A. h m	S. Dec. ° '	P.A. ° '	Dist. "	No. of Nights.	Mags.	Date.
O.S. 51	0 3	14 51	108 4	10.1	2	9, 9	1902.850
β 391 (κ^1 Sculptoris)	0 4	28 32	272 8	1.10	2	6.5, 6.5	.847
<i>h</i> 3377	0 28	26 38	58 1	19.1	2	6, 9.5	.854
<i>h</i> 3375	0 29	35 32	166 9	6.05	2	6.5, 9.4	1903.003
<i>h</i> 3395	0 41	42 27	76 4	7.40	3	8.5, 9	1902.854
C.G.C. 784	0 47	23 9	268 5	2.15	2	7.5, 8	1903.008
Washington I. ...	0 48	25 19	12 7	5.70	2	6.7, 8.5	1902.850
C.G.C. 815	0 48	25 31	27 0	13.2	1	7, 7.4	.852
LL. 1662... ..	0 53	16 13	215 2	6.31	2	8, 8.4	.882
Cord. Z.C. 1 ^h , 333	1 14	27 2	312 0	2.05	2	8, 8.5	.854
<i>h</i> 2036	1 15	16 20	15 1	1.50	3	7, 7.3	.862
<i>h</i> 3447 (τ Sculptoris)	1 32	30 25	97 0	1.80	3	6, 7	.901
<i>h</i> 3461	1 41	25 33	53 7	4.70	3	5, 9.3	.901
292 Ceti	1 54	23 24	305 0	8.44	1	7, 7.4	.895
Hastings I.	2 11	18 42	353 6	2.05	3	8, 8.5	1902.906

Star's Name.	R.A.	S. Dec.	P.A.	Dist.	No. of Nights.	Mags.	Date.
	h m	° '	° '	"			
C.G.C. 2739 ...	2 30	21 59	97 8	14.7	1	7.3, 9	1902.912
<i>h</i> 3527 ...	2 40	40 58	44 1	2.01	2	7, 7	'931
<i>h</i> 3532 ...	2 45	37 50	147 1	5.40	2	6.8, 8.5	'939
<i>β</i> 741 ...	2 53	25 22	167 7	1.48	3	8, 8.4	'939
<i>h</i> 3565 ...	3 14	18 55	115 2	6.24	2	5.8, 8.5	'950
<i>h</i> 3596 ...	3 45	32 5	135 9	8.02	2	8, 8.3	'964
<i>f</i> Eridani ...	3 45	37 56	205 4	7.40	2	5, 5.5	'964
<i>β</i> 1004 ...	3 58	34 46	141 2	1.90	3	7.3, 7.8	'983
<i>β</i> 184 ...	4 23	21 43	259 9	1.25	2	7, 8	1903.137
<i>h</i> 3750 ...	5 16	21 20	280 1	3.50	2	4.8, 9.5	'137
<i>h</i> 3752 ...	5 18	24 53	101 4	3.05	2	5.5, 7.5	'137
<i>β</i> 757 ...	7 9	36 22	69 5	3.01	2	6.5, 9.4	'162
Jacob 4 ...	7 15	36 35	209 6	2.90	2	9.8, 10	'162
<i>h</i> 3950 ...	7 15	21 52	345 4	4.14	2	8.3, 8.3	'162
<i>h</i> 3949 ...	7 15	30 37	77 8	2.98	2	8, 8.4	'162
<i>Σ</i> 1104 ...	7 24	14 47	332 7	2.35	2	7, 9	'162
P. VII., 124 ...	7 25	31 38	52 0	8.60	1	6.5, 7.5	'164
<i>σ</i> Argus ...	7 26	43 6	74 2	22.3	1	3, 9	'164
Howe 8 ...	7 49	34 27	280 1	2.58	2	5, 9	'162
<i>Σ</i> 1157 ...	7 49	2 32	245 9	1.20	2	8, 8	'260
<i>β</i> 583 ...	8 4	6 25	69 8	1.75	2	9, 9.5	'167
<i>β</i> 334 ...	8 4	21 51	352 4	2.80	2	8, 9	'167
O.S. (O.A. 8124) ...	8 5	26 50	261 2	3.30	2	8.5, 9.3	'162
<i>h</i> 4063 ...	8 11	37 0	349 3	18.1	1	7.5, 9.3	'260
<i>β</i> 454 ...	8 12	30 37	15 6	2.50	2	6.8, 9	'293
<i>h</i> 4093 ...	8 23	38 43	122 9	8.05	2	7, 7.5	'260
<i>Σ</i> 1295 ...	8 51	7 35	353 2	4.30	2	7, 7.3	'290
<i>β</i> 210 ...	8 52	17 3	183 6	2.70	2	7, 7	'293
C.G.C. 12,339 ...	8 58	33 7	153 0	13.7	1	7.3, 7.8	'293
<i>Σ</i> 1316 (A-C) ...	9 2	6 44	169 4	7.50	2	8, 10	'290
<i>h</i> 4200 ...	9 16	31 20	72 8	2.59	2	7.8, 8.5	'337
<i>ζ</i> Antliae ...	9 26	31 27	212 5	8.00	1	5.8, 6.5	'290
<i>h</i> 4224 ...	9 32	30 47	117 5	7.01	2	8, 9	'337
<i>h</i> 4249 ...	9 44	34 33	126 5	4.16	2	8, 8	'337
C.G.C. 13,722 ...	9 58	17 30	273 6	21.6	1	6.5, 7.4	'337
<i>β</i> 217 ...	10 2	24 14	279 4	1.95	2	8, 8	'337
<i>β</i> 25 ...	10 17	9 16	174 3	1.80	2	8.3, 8.8	'348
<i>s</i> Velorum ...	10 28	44 31	217 4	13.3	1	6.5, 6.8	'337
<i>Σ</i> 1474 ...	10 43	14 44	196 5	6.77	2	6.7, 7	1903.293

Star's Name.	R.A.	S. Dec.	P.A.	Dist.	No. of Nights.	Mags.	Date.
	h m	° '	° '	"			
Σ 1476 ...	10 44	3 29	2 3	2.54	2	7, 8	1903.348
LL. 21,178 ...	10 57	15 9	16 2	2.90	2	8, 8.5	.364
Howe 15 ...	10 58	26 58	335 2	2.10	2	7.5, 9.3	.348
h 4423 ...	11 12	45 20	275 2	2.20	3	7, 7.3	.348
Jacob 7 ...	11 25	23 55	78 3	8.51	2	6, 8.5	.348
N. Hydræ ...	11 27	28 43	209 5	9.24	2	5.5, 5.5	.293
h 4455 ...	11 32	33 10	243 7	3.83	2	6.3, 9.4	.293
C.G.C. 15,942 ...	11 34	37 25	95 7	16.8	1	7, 9	.337
Howe 16 ...	11 35	36 52	103 6	3.31	2	8, 8.5	.364
β Hydræ ...	11 48	33 21	352 6	1.76	3	5, 6.5	.348
h 4481 ...	11 52	21 59	197 4	3.25	2	8, 8	.389
h 4495 ...	12 0	32 23	318 1	6.58	1	6.5, 9	.389
C.G.C. 16,612 ...	12 3	34 0	202 7	3.86	2	6.5, 9	.348
Jacob 8 ...	12 5	34 8	20 5	3.07	2	6.5, 8.8	.364
LL. 22,863 ...	12 6	16 14	285 4	6.07	2	6.5, 9	.348
D Centauri ...	12 9	45 10	241 5	3.10	2	5.5, 7	.397
δ Corvi ...	12 25	15 57	214 3	24.40	1	3, 8.5	.389
γ Virginis ...	12 37	0 54	330 1	5.88	3	3, 3	.397
h 4556 ...	12 49	27 25	81 9	6.41	1	7, 8.5	.397
γ 4563 ...	12 55	33 5	236 7	6.80	2	7.5, 9	.364
β 342 ...	13 10	18 23	33 8	3.96	3	8, 8.5	.457
O.A. 12,867 ...	13 21	22 43	356 2	1.60	2	8.8, 9	.457
β 114 ...	13 29	8 6	142 8	1.50	2	8, 8	.449
h 4608 ...	13 36	33 28	178 6	4.52	1	7.5, 7.5	.397
h 4617 ...	13 45	29 22	260 2	5.02	2	7.5, 9.5	.457
κ Centauri ...	13 46	32 30	109 5	7.91	1	4.8, 6	.457
β 343 ...	13 46	31 7	120 7	1.02	3	6, 7	.457
Lac. 5751 ...	13 48	31 36	3 8	14.32	1	7, 8.5	.485
Σ 1788 ...	13 49	7 34	79 5	2.70	2	6.8, 8.5	.444
h 4661 ...	14 6	28 51	228 7	4.50	1	9, 9	.485
Howe 28 ...	14 12	27 3	119 7	3.20	2	9.3, 9.3	.449
h 4672 ...	14 14	42 36	304 0	4.00	2	6.5, 9.5	.449
Σ 1837 ...	14 19	11 13	300 5	1.42	2	7, 8.5	.449
β 117 ...	14 26	15 11	95 9	2.30	2	8, 9	.485
h 4690 ...	14 31	45 41	25 6	19.2	1	5.5, 8	.485
Howe 29 ...	14 31	37 6	213 6	4.20	2	8, 8.5	.512
54 Hydræ ...	14 40	25 1	130 0	8.70	1	5.5, 7.5	.512
β 106 (A-B) ...	14 44	13 44	342 1	1.80	2	5.5, 6.5	.449
β 347 (A-C) ...	14 48	32 5 3	242 7	58.1	1	6, 9.8	1903.485

Star's Name.	R.A.	S. Dec.	P.A.	Dist.	No. of Nights.	Mags.	Date.
	h m	° ' "	° ' "	"			
<i>h</i> 4718	14 51	34 58	63 3	2'20	2	7, 9	1903'457
P. XIV., 212	14 52	20 57	294 9	16'76	2	6, 8	'449
<i>h</i> 4722	14 53	30 18	339 8	8'70	2	7'5, 9	'512
<i>h</i> 4727	14 57	27 26	36 8	7'62	2	8'3, 8'3	'485
Howe 31	15 7	36 52	46 4	6'50	2	7'2, 7'5	'496
Anon.	15 10	36 45	197 7	20'7	1	7, 7'5	'496
β 227	15 13	23 54	175 1	2'10	2	7, 8'5	'496
<i>h</i> 4783	15 23	19 48	281 6	10'93	1	6'8, 8'5	'485
<i>h</i> 4776	15 23	41 34	225 6	5'40	2	7, 8'5	'457
<i>h</i> 4788	15 29	44 37	1 5	2'20	2	5, 8	'496
Cord. Z.C. 15 ^h 2046	15 31	31 11	44 7	2'05	2	8, 8'5	'575
Anon.	15 36	14 30	270 5	5'40	2	7'5, 8	'575
Howe 37	15 38	41 30	350 6	3'80	2	6'5, 8'5	'594
β 35	15 38	15 41	100 6	2'60	2	7, 9	'594
ξ Lupi	15 50	33 40	48 6	10'80	1	5'5, 6	'485
ξ Scorpii (AB-C)	15 59	11 6	63 2	7'10	2	4'5, 7'5	'600
β 120 (C-D)	16 6	19 12	48 7	2'05	2	7, 8	'594
<i>h</i> 4836	16 11	34 35	298 7	4'25	2	8, 8'5	'600
<i>h</i> 4848	16 17	32 58	154 5	6'09	1	7, 7'5	'594
<i>h</i> 4850	16 18	29 28	350 6	6'25	1	6, 6'5	'659
ρ Ophiuchi	16 20	23 13	353 4	3'35	2	5'5, 6	'659
α Scorpii... ..	16 23	26 13	274 7	3'30	2	1, 7'5	'662
P. XVI., 236	16 51	19 23	230 5	4'85	2	6'8, 8	'643
Howe 45... ..	17 0	35 45	23 4	5'15	2	8, 8'5	'643
36 Ophiuchi	17 9	26 27	188 8	4'15	2	5'3, 5'5	'594
38 Ophiuchi	17 11	26 31	337 5	5'97	2	6'5, 9	'594
β 416	17 12	34 53	287 5	2'25	5	6, 8	'659
O.S. (Ophiuchi)	17 12	16 58	290 3	16'9	1	8, 9'3	'643
β 126	17 14	17 39	262 5	2'06	2	6'5, 7'5	'668
Howe 47... ..	17 23	33 38	324 5	4'60	2	7, 9'5	'659
Lac. 7465	17 43	30 31	188 8	10'79	1	7, 8	'600
<i>h</i> 5003	17 53	30 15	104 5	5'37	2	5'3, 7	'600
τ Ophiuchi	17 57	8 11	258 7	2'02	2	5'5, 6	'600
<i>h</i> 5014	17 59	43 25	241 6	1'62	3	6, 6	'643
Howe 50.	17 59	36 35	3 8	3'22	2	7'8, 8'5	'717
70 Ophiuchi	18 0	2 32	194 4	1'75	6	4, 6	'693
<i>h</i> 5023	18 4	40 27	277 5	8'61	1	8, 8'3	'659
β 245	18 4	30 45	353 4	4'20	2	6, 8	1903'643

Star's Name.	R.A.	S. Dec.	P.A.	Dist.	No. of Nights.	Mags.	Date.
	^h ^m	[°] [']	[°] [']	^{''}			
β 132	18 5	19 52	218 6	elongated	2	7, 7.3	1903.643
β 759 (A-B)	18 5	39 22	120 7	1.70	3	8.5, 9	.717
(AB-C)			147 8	15.2	1	9, 9.3	.717
β 639 (AB-C) ...	18 13	18 40	52 0	17.4	1	7, 7.5	.668
Stone 10,006 ...	18 16	42 50	137 9	3.50	2	8.5, 8.8	.668
Jacob 10	18 19	20 36	288 0	1.85	3	5, 8.5	.668
Cor. Z.C. 18 ^h , 1122	18 19	27 28	358 6	5.52	2	8, 8	.643
β 133	18 22	26 42	260 3	1.70	2	7.5, 7.5	.643
Hh. 567	18 23	25 6	102 0	3.05	2	7.5, 7.8	.643
κ Cor. Australis ...	18 26	38 48	358 8	21.30	1	6, 7	.643
O.S. (Lac. 7763)...	18 28	34 54	137 1	1.75	3	7.8, 8.3	.698
λ Cor. Australis ...	18 37	38 25	214 3	29.6	1	5.5, 9.3	.717
Σ 2373	18 40	10 36	338 5	3.65	2	7, 8	.717
Lac. 7947	18 54	37 12	282 5	12.30	1	7.5, 7.5	.698
Washburn 33 ...	18 56	28 47	58 1	2.70	2	8, 8.8	.668
γ Cor. Australis...	19 0	37 12	134 0	1.90	6	5, 5	.676
South 710	19 0	16 25	0 2	6.28	1	5.8, 8.9	.659
h 5094	19 5	34 0	205 2	15.6	1	7, 7	.643
Cordoba 55	19 8	27 29	329 5	2.25	3	8, 8.3	.698
O. Arg. S. 19,295	19 8	16 11	160 8	5.32	2	8.5, 8.5	.698
h 1381 ?	19 12	16 7	15 6	15.5	1	6, 7.5	.698
h 596	19 12	16 9	14 1	6.09	2	7.3, 7.8	.698
h 5113	19 19	29 30	164 6	16.5	1	6, 9.3	.698
β 142	19 22	12 21	337 6	1.60	3	8, 8	.698
H. 119	19 24	27 11	140 1	7.47	1	6, 8.8	.668
LL. 37,207	19 33	10 22	323 2	3.65	2	7.3, 9	.728
O.S.	19 42	22 4	5 2	1.65	2	7.8, 8.3	.704
P. XIX., 365 ...	19 57	0 28	294 4	2.15	2	8, 8.5	.734
Cord. Z.C. 20 ^h , 20	20 3	39 1	261 5	3.40	2	9, 9.3	.704
h 5178	20 7	34 25	9 4	2.85	2	7, 8.5	.704
Dunlop 230	20 11	40 30	116 3	9.65	1	7.3, 7.5	.668
β 762	20 11	32 55	303 9	2.30	2	8, 8.3	.704
Cord. Z.C. 20 ^h , 417	20 14	27 30	52 2	2.45	2	9, 9.5	.728
A.Oe ₂ 20,449-50	20 16	18 45	108 6	2.40	2	8, 8.5	.704
Lac. 8390	20 19	40 20	320 5	30.8	1	8, 8.5	.734
π Capricorni ...	20 21	18 36	145 9	3.30	2	5, 9	.717
Howe O.A. 20,494	20 21	26 57	52 4	2.90	2	8.5, 9	.734
ρ Capricorni ...	20 23	18 13	169 2	2.75	2	5, 7.5	.717
Jacob 11	20 27	40 54	223 8	4.30	2	7.5, 8.5	1903.717

Nov. 1903. *Double Stars at Shanghai, 1902-3.* 57

Star's Name.	R.A.	S. Dec.	P.A.	Dist.	No. of Nights.	Mags.	Date.
	h m	° '	° '	"			
<i>h</i> 1537	20 31	15 40	20 8	3'30	2	8.8, 9.5	1903.720
<i>h</i> 5226	20 43	27 46	66 6	19.1	1	7.5, 8.5	.720
C.G.C. 29,052	21 4	23 37	303 2	8.27	1	8, 9	.717
<i>h</i> 5252	21 7	15 25	319 7	3.53	2	8, 8.5	.704
<i>β</i> 767	21 21	42 59	140 6	2.30	2	5.8, 9	.720
LL. 41,705	21 22	13 52	133 3	2.85	2	8, 9	.734
C.G.C. 29,568	21 35	18 53	66 1	5.03	2	8, 9.4	.717
<i>η</i> Piscis Australis	21 55	28 56	116 6	1.85	3	6, 6.5	.717
29 Aquarii	21 57	17 27	242 6	3.90	2	7, 8	.717
<i>β</i> 170	22 3	18 58	58 8	1.65	3	8.5, 8.5	.720
<i>h</i> 5319	22 6	38 48	122 7	2.00	2	8, 8	.720
South 808	22 19	20 52	49 9	7.09	2	7, 8	.734
Σ 2900 (AB-C)	22 19	^N 20 21	325 2	67.44	2	6, 9.3	1902.956
ζ Aquarii	22 24	0 32	319 7	3.29	2	4.5, 4.6	1903.720
<i>h</i> 5356	22 34	28 52	63 2	3.10	2	7.8, 8.5	.737
Σ 2928	22 34	13 8	313 3	4.18	2	8.8, 8.8	.720
Σ 2944 (A-B)	22 43	4 45	258 8	3.16	2	7, 8.3	1902.953
γ Piscis Australis	22 47	33 24	267 6	3.65	2	4.5, 8.5	1903.720
Σ 3008	23 19	9 2	237 4	3.89	2	7.5, 8	.720
<i>h</i> 5417	23 39	26 48	320 9	8.95	2	6, 9.5	.734
ι ² Aquarii	23 41	19 14	138 2	5.90	2	5.5, 7	.720
Σ 3041 (A-C)	23 43	^N 16 31	351 8	66.11	2	7.3, 8	1902.964
„ (A-B)			178 1	3.32	2	7.3, 8	.964
Dunlop 253	23 49	27 36	269 6	6.96	2	6.8, 7.5	1903.734
Σ 3050	23 54	^N 30 10	214 6	2.50	2	6, 6	1902.983

Shanghai: 1903 September.